

FINAL DRAFT – April 30, 2009
Request for Economic Stimulus Funds

Concept Proposal

Submitters (Name of Workgroup & Chair/Co-Chairs):

Technology and Networking – Al Lind, Chair

Sustainable Adoption Writing Team - René True, Team Captain,

Project Title:

Stimulating Broadband Demand to Increase Sustainable Adoption

Project Partners (Known or Anticipated):

CPE, individual Kentucky universities and colleges, KCTCS, Kentucky Department of Education, Kentucky Department for Workforce Investment, Commonwealth Office of Technology, Kentucky Department of Library & Archives, Kentucky Virtual Campus, Kentucky Virtual Library, and ConnectKentucky/Connected Nation. Others potential partners include Kentucky foundations and corporations wanting to leverage their contributions to technology adoption programs with federal stimulus funds.

Project Background & Purpose (Justification for Project):

In recent years, Kentucky has seen unprecedented growth in the adoption of broadband. Between 2005 and 2007, broadband adoption in the state grew by 83%, while adoption nationally only grew by an estimated 57%.¹ Despite this dramatic increase, as of 2007 Kentucky was still slightly below the national average for broadband adoption, with 44% of Kentucky residents subscribing to home broadband service compared to 47% of Americans nationwide.² This gap in broadband adoption is even more evident among certain populations across Kentucky. For instance, in 2007 only 17% of low-income adults subscribed to home broadband

¹ KY growth comes from two studies: 2005 University of KY E-Commerce Report (statewide digit dial telephone survey conducted March 2005. N=1,102 +/- 3% at the 95% level of confidence), and the 2007 ConnectKentucky Residential Technology Assessment (statewide random digit dial telephone survey completed September 2007. N = 10,830 +/- 1.7% at the 95% level of confidence). The national growth rate is estimated using figures from the report "Home Broadband Adoption 2007" by John Horrigan and Aaron Smith, Pew Internet and American Life Project, June 2007

² 2007 ConnectKentucky Residential Technology Assessment and "Home Broadband Adoption 2007" by John Horrigan and Aaron Smith, Pew Internet and American Life Project, June 2007

service.³ In addition, only 18% of adults with disabilities, 20% of residents age 65 or older, 25% of adults with no college education, 36% of African Americans, and 35% of adults living in rural areas subscribed to home broadband service.⁴ Across all of these groups, the top barriers to broadband adoption continue to be the lack of a home computer and the belief that they do not need broadband. Broadband adoption among low-income Kentucky families grew by 211% in counties participating in Computers 4 Kids[®] during that same period, more than five times faster than the rest of the state.⁵

Increasingly more and more government services and information are available online, such as car tags, hunting licenses, campsite reservations, library services, taxes, elections and more. All information that everyone needs to be a participating member of our society are online. However many people remain unaware of the advantages that a broadband connection would bring to them. Demonstrating the value of broadband will persuade some Kentuckians that broadband is important enough to be included in their budget. However, others simply lack the means. To address affordability issues, targeted programs that provide broadband access through community broadband centers in public locations such as libraries, schools, other government buildings or non-profit organizations merit consideration.

In many counties, the public library is the place people go to do their online research, hunt for work, and even file their unemployment applications. Expanding broadband technology to the unserved or underserved populations in Kentucky will provide all citizens equal access to a high speed Internet connection, whether they are applying for unemployment, looking for a job, taking an on-line course, or looking for help with their homework.

Kentucky's college educational attainment level is significantly below the national average; 20.0% of Kentucky residents aged 25 and over have at least a bachelor's degree, compared to the national average of 27.5%.⁶ Promoting the use of distance learning opportunities through the Kentucky Virtual Campus to residents will drive broadband adoption rates, while helping Kentucky reach the goal of college educational attainment levels equal to the national average by 2020. Providing distance-learning opportunities will also drive the number of postsecondary certificate holders through KCTCS programs, assist K-12 learning environment and promote the use of online library resources from the Kentucky Virtual Library for Kentucky's children and

³ 2007 ConnectKentucky[®] Residential Technology Assessment. "Low-income" is defined as having an annual household income below \$25,000

⁴ Ibid.

⁵ Ibid.

⁶ Educational Attainment in the United States: 2007. <http://www.census.gov/prod/2009pubs/p20-560.pdf>

adult learners. The number of students enrolled in public postsecondary distance learning grew 25% between Fall 2007 and Fall 2008. Additional distance learning degree programs are designed for the working adult and participation rates are higher in the rural counties than in urban counties. Advanced Placement (AP) and other courses are available from Kentucky Virtual Schools. This is particularly helpful to rural school districts that do not have an adequate quantity of qualified teachers or enough students to justify a class in, say Mandarin Chinese.

Although Kentucky has made some great strides, there is still work required in order for every Kentuckian to benefit from access to high speed Internet. Aggregating the multitude of rich content and convenient online applications available through Kentucky's postsecondary institutions, and crossing the digital divide for low-income and disadvantaged K-12 students without adequate access to technology resources will provide a tremendous positive affect on the lives of those touched by the initiatives. Preparing Kentuckians to prosper in a globally networked world through enhanced online educational experiences is critical to Kentucky's economic development efforts.

Project Description (General Goals & Implementation Strategies):

The goal for using federal stimulus funds is to increase the take rate of broadband across the Commonwealth and provide a richer online experience by exposing citizens to the opportunities waiting from online applications and content of Kentucky's educational institutions.

Implementation Strategies:

- a. Expand the successful Computer 4 Kids program by leveraging foundation and corporation contributions to meet the 20% match and aggregating Kentucky's educational institution resources, such as surplus computers, to initiate and promote programs that prepare Kentucky's children to prosper in a globally networked world through enhanced online educational access. Computer 4 Kids devices can be preloaded with educational applications to enhance the learning experience. Incorporating netbooks and mobile computing devices as part of the program can reduce per device costs and appeal to today's on the go digital native.
- b. Promote sustainable adoption with online educational applications. High-speed Internet has the power to level the playing field between students enrolled in traditional onsite college and university campus programs and students participating in distance learning programs with online support services. Kentucky's colleges and universities offer numerous distance-learning programs such as online learning, independent learning, interactive video services, streaming online video courses, online library research resources and the ability to earn online certificates.
- c. Revitalize county level technical advisory teams representing nine industry sectors in every county called the eCommunity Leadership Teams (eCLT). The eCLT approach at the county level provides an opportunity to implement awareness programs to increase adoption of online learning and other postsecondary applications. eCLT can concentrate on K-12 education, higher education and library applications and content awareness programs.

- d. Leverage Kentucky's library system as part of the strategy to increase awareness and adoption of broadband technologies. Public libraries play a vital role in the community by providing every resident with the opportunity to receive instruction and free Internet access. Because the library plays such an important role in the community, it is essential that local libraries are on the cutting edge of technology and continue to develop new methods of keeping their patrons up to date.
- e. Coordinate the use of the K-12 Student Technology Leadership Program, Technology Student Association and postsecondary technology students to provide technology-training resources to digital immigrants that are resistant to adopting technology.
- f. Enhance distance-learning delivery in higher education. Growing online education will require the development of significantly more online programs and courses to reach the population of rural, underserved, place-bound citizens. Faculty who develop high-quality learning environments that exploit new media and techniques require significant technical and pedagogical support. Reinforcing faculty development units to provide that support improves both the quality and quantity of both completer and fully online programs.

Project Team (Project Manager(s), Content Experts, Instructional Designers, etc.):

ConnectKentucky/Connected Nation
 Council for Postsecondary Education
 Kentucky universities and colleges
 Kentucky Community and Technical College System
 Commonwealth Office of Technology
 Kentucky Department of Library & Archives
 Kentucky Department of Education
 Kentucky Department for Workforce Investment
 Kentucky Educational Television

Project Budget & Amount of Economic Stimulus Funds Requested:

Developing an effective county level awareness program to educate citizens about the vast online opportunities available through Kentucky's postsecondary educational institutions will require dedicated personnel to do in county meetings and grassroots engagement. Below budget figures are for a three-year program period.

County level household and business technology research	\$ 300,000
County level application and content awareness	2,450,000
Expansion of Computers 4 Kids program	3,000,000
Coordination of student technology training resources	300,000
Enhance distance-learning delivery in higher education	<u>1,890,000</u>
Total Estimated Program Cost	\$7,940,000